

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 3, 2016/2017

**PPE0044 – BASIC MICROECONOMICS**  
(Foundation in Business)

26 MAY 2017  
9 A.M. – 11 A.M.  
(2 Hours)

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### INSTRUCTIONS TO STUDENT

1. This question paper consists of **NINE** pages.
2. Answer **ALL** questions in **Section A** and **B**.
3. The answers for **Section A** should be shaded on the OMR sheet. The answers for **Section B** should be written in the Answer Booklet.

**SECTION A: MULTIPLE CHOICE QUESTIONS [30 MARKS]**

**Instructions:** Answer ALL questions in this section. Shade the answers on the OMR sheet.

1. If at a price of RM24, Octavia sells 36 home-grown orchids and at RM30 she sells 24 home-grown orchids, the demand for her orchids is \_\_\_\_\_.
  - A. elastic
  - B. inelastic
  - C. unit-elastic
  - D. perfectly elastic
2. The price elasticity of supply for umbrellas is 2. Suppose you're told that following a price increase, quantity supplied increased by 30 percent. What was the percentage change in price that brought this about?
  - A. 60 percent
  - B. 15 percent
  - C. 6.7 percent
  - D. impossible to determine without additional information
3. Consider a demand curve that has a constant elasticity value of 0. What happens to quantity demanded and total revenue when price increases?
  - A. The quantity demanded and total revenue fall to zero.
  - B. The quantity demanded and total revenue remain the same.
  - C. The quantity demanded does not change but total revenue increases.
  - D. The quantity demanded does not change but total revenue decreases.
4. Rank these three items in terms of the price elasticity of the demand for them at any given price, from most elastic to least elastic: hot beverages, coffee and Starbucks' Coffee.
  - A. hot beverages, coffee, Starbucks' Coffee
  - B. Starbucks' Coffee, coffee, hot beverages
  - C. coffee, Starbucks' Coffee, hot beverages
  - D. coffee, hot beverages, Starbucks' Coffee
5. Consider the following pairs of items:
  - i. shampoo and conditioner
  - ii. iPhones and earbuds
  - iii. a laptop computer and a desktop computer
  - iv. beef and chicken
  - v. air-travel and weed killer

Which of the pairs listed will have a negative cross-price elasticity of demand?

- A. v only
- B. i and ii only
- C. iii and iv only
- D. i, ii, and iii only

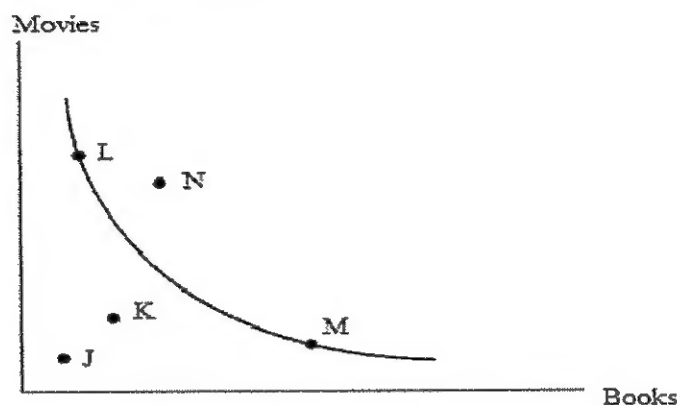
**Continued...**

6. If the quantity demanded for a good rises as income rises then the income elasticity of demand for this good is \_\_\_\_\_ than 0, and the good is \_\_\_\_\_ good.
- A. less; a normal
  - B. less; an inferior
  - C. greater; a normal
  - D. greater; an inferior
7. A tax on the sellers of popcorn will cause \_\_\_\_\_.
- A. the price the buyers would pay and the sellers would receive to fall
  - B. the price the buyers would pay and the sellers would receive to rise
  - C. the price the buyers would pay to fall and the price the sellers would receive to rise
  - D. the price the buyers would pay to rise and the price the sellers would receive to fall
8. Consider a downward-sloping demand curve. When the price of an inferior good increases, the income and substitution effects \_\_\_\_\_.
- A. work in the same direction to increase quantity demanded.
  - B. work in the same direction to decrease quantity demanded.
  - C. work in opposite directions and quantity demanded increases.
  - D. work in opposite directions and quantity demanded decreases.
9. If Ewan is consuming his utility maximising bundle and the price of one good falls, what happens to the marginal utility per dollar spent on this good ( $MU/P$ ), and what should Ewan do?
- A.  $MU/P$  has increased and Ewan should buy less of this good.
  - B.  $MU/P$  has decreased and Ewan should buy less of this good.
  - C.  $MU/P$  has increased and Ewan should buy more of this good.
  - D.  $MU/P$  has decreased and Ewan should buy more of this good.
10. Adhira buys chocolates and almonds. She has 3 bars of chocolates and 4 bags of almonds. The marginal utility of the third chocolate bar is 18 units of utility and the marginal utility from the fourth bag of almonds is also 18. Is Adhira maximising her utility?
- A. Yes, the marginal utility from the last unit of each good is equal.
  - B. No, she must buy 1 more chocolate bar to equate her quantities of the two goods.
  - C. No, she must buy cut back to 3 bags of almonds to equate her quantities of the two goods.
  - D. No, without information on her income and the prices of the two goods, we cannot answer the question.

Continued...

11. Why does the paradox of value between diamonds and water arise?
- A. because diamonds have a higher value to people even though water is essential to life
  - B. because water has a low price and a low total utility, while diamonds have a high price and a high total utility
  - C. because water has a low price and a low marginal utility, while diamonds have a high price and a high marginal utility
  - D. because water has a low price and a low total utility, while diamonds have a high price but also a low total utility

Refer to *Exhibit 1* for question no.12.



*Exhibit 1*

12. Which of the following preference rankings is **NOT** consistent with *Exhibit 1*?
- A. K is preferred to J.
  - B. L is preferred to K.
  - C. L is preferred to M.
  - D. N is preferred to M.
13. If total utility increases at a decreasing rate as a consumer consumes more coffee, then marginal utility must \_\_\_\_\_.
- A. decrease
  - B. be negative
  - C. increase also
  - D. remains constant
14. Joe runs a restaurant. He pays his employees RM200,000 per year. His ingredients cost him RM50,000 per year. Prior to running his restaurant, Joe was a lawyer earning RM150,000 per year. What would economists say is Joe's cost of running the restaurant?
- A. RM150,000
  - B. RM200,000
  - C. RM250,000
  - D. RM400,000

Continued...

15. Which of the following is **NOT** true when the firm experiences diminishing marginal product?
- A. The total product is decreasing.
  - B. The firm's total cost is increasing.
  - C. The firm is operating in the short run.
  - D. The marginal product of the previous worker is higher than the current worker.
16. Total cost of production is the sum of total variable cost and total fixed cost. If the total fixed cost alone increases, \_\_\_\_\_.
- A. the marginal cost curve shifts upward at all output levels
  - B. the average variable cost curve shifts upward at all output levels
  - C. the average total cost curve shifts downward at all output levels
  - D. the vertical distance between the average total cost curve and average variable cost curve increases at all output levels
17. Suppose that in 1999 ABC Corp. produced 500 million units of a good at an average cost of RM2, and in 2000 ABC Corp. expanded its plant capacity and produced 600 million units at an average cost of RM1.80. In this range, one can conclude that ABC Corp. is experiencing \_\_\_\_\_.
- A. economies of scale
  - B. diseconomies of scale
  - C. diminishing marginal product
  - D. neither economies of scale or diseconomies of scale
18. If 11 workers can produce a total of 54 units of a product and a 12th worker has a marginal product of 6 units, then the average product of 12 workers is \_\_\_\_\_.
- A. 5 units
  - B. 60 units
  - C. 54 units
  - D. 48 units
19. If the firm is producing in the long run, then the firm's average total cost curve \_\_\_\_\_.
- A. equals zero
  - B. equals the average variable cost curve
  - C. exceeds the average variable cost curve
  - D. is less than the average variable cost curve
20. Assume that price is greater than average variable cost. If a perfectly competitive seller is producing at an output where price is RM11 and the marginal cost is RM14.54, then to maximise profits the firm should \_\_\_\_\_.
- A. produce a larger level of output
  - B. produce a smaller level of output
  - C. continue producing at the current output
  - D. There is not enough information given to answer the question

Continued...

21. You sell your good in a perfectly competitive market where the market price is RM7.00. When you sell 100 units your total revenue is RM700. When you sell 101 units \_\_\_\_\_.
- A. total revenue may increase or decrease
  - B. total revenue increases by exactly RM7
  - C. total revenue increases by less than RM7
  - D. total revenue increases by more than RM7
22. Suppose Robin's Clock Works produces in a perfectly competitive market. Suppose the average total cost of clocks is RM95, the average variable cost of clocks is RM90, and the price of clocks is RM85. If the firm is producing the level of output where marginal cost equals price, then in the short run the firm \_\_\_\_\_.
- A. should shut down
  - B. is earning a positive economic profit
  - C. can increase profit by increasing output
  - D. should continue to produce since total revenue exceeds total variable cost
23. A firm's short-run supply curve is the firm's \_\_\_\_\_.
- A. marginal revenue curve
  - B. average cost curve, below the minimum point of the marginal cost curve
  - C. marginal cost curve above the minimum point of the average total cost curve
  - D. marginal cost curve above the minimum point of the average variable cost curve
24. If a monopolist charges the same price for all of the units of the good that it sells, then beyond the first unit sold \_\_\_\_\_.
- A.  $P = MR$  because the firm maximises profit
  - B.  $P = MR$  because the monopolist holds price constant
  - C.  $P < MR$  because the monopolist must decrease price on all units in order to sell another unit
  - D.  $P > MR$  because the monopolist must decrease price on all units in order to sell another unit
25. Which conditions must hold if a firm is to engage in price discrimination?
- A. Firms must have a sufficiently low amount of market power.
  - B. Consumers must have very similar preferences for the product.
  - C. It must be extremely difficult, if not impossible, for one consumer to resell a product to another.
  - D. All of the above
26. If a profit-maximising monopoly firm selects a price at which demand is inelastic, \_\_\_\_\_.
- A. it is maximising profits
  - B. it is not maximising profits
  - C. its marginal revenue is positive
  - D. it can lower revenues by raising the price

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27. In comparing monopoly and perfect competition, which of the following statements is **TRUE**?
- A. Monopolies automatically earn profits; perfectly competitive firms do not.
  - B. In the long run, both monopoly and perfect competition produce at minimum average cost.
  - C. In the short run, both monopoly and perfect competition attempt to minimise average fixed costs.
  - D. Competitive firms' profits will disappear in the long run as new firms enter the industry; monopoly profits can be protected in the long run by barriers to entry.
28. Monopolistic competition combines elements of competition and monopoly in one market model. At the profit-maximising long-run equilibrium, which of the following will be correct for a competitive and monopolistic competitive firm?
- A. Economic profits are zero.
  - B. Price equals marginal revenue.
  - C. Price is greater than marginal cost.
  - D. Price is greater than the average cost.
29. If short-run economic profits are greater than zero for firms in a monopolistically competitive market, in the long run we expect \_\_\_\_\_.
- A. profits to increase
  - B. the demand curve for firms in the market to shift to the right
  - C. competing firms to enter the market and sell similar products
  - D. entry barriers to prevent competing firms from entering this market
30. The kinked demand curve model implies that \_\_\_\_\_.
- A. if one firm lowers its price then no others will match the price decrease
  - B. if one firm changes its price then no others will match the price change
  - C. if one firm increases its price then no others will match the price increase
  - D. if one firm increases its price then the others will all match the price increase

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**SECTION B: STRUCTURED QUESTIONS [70 MARKS]**

**Instructions:** Answer **ALL** questions in this section. Write your answers in the Answer Booklet.

**Question 1****Part A**

Arnie Ziffel consumes pineapples and green tea. *Exhibit 2* shows the amount of utility she obtains from different amounts of these two goods.

Pineapples		Green Tea	
Quantity	Total Utility	Quantity	Total Utility
1	32	1	28
2	52	2	46
3	64	3	54
4	68	4	60
5	70	5	64

*Exhibit 2*

Suppose the price of a pineapple is RM4 and the price of a bottle of green tea is RM2. Arnie also has RM20 per week to spend on pineapples and bottles of green tea.

- Calculate Arnie's marginal utility and marginal utility per price ratio for pineapple.  
(5 marks)
- Calculate Arnie's marginal utility and marginal utility per price ratio for green tea.  
(5 marks)
- Suppose Arnie purchases 4 pineapples and 2 bottles of green tea. Is she consuming the optimal consumption bundle? If so, explain why. If not, what combination should she buy and why?  
(5 marks)

**Part B**

Farah has RM100 to spend each month on bread and chicken. Suppose the price of bread is RM4 a loaf and the price of chicken is RM5 per pound.

- Draw her budget constraint and label it  $BC_0$ . Put bread on the horizontal axis and chicken on the vertical axis. Be sure to identify the intercept values.  
(2.5 marks)
- Suppose Farah is a utility maximiser and she consumes 10 loaves of bread and 12 pounds of chicken. On the same graph you drew in (a), draw an indifference curve to identify her optimal bundle. Label this bundle "E".  
(2 marks)
- Based on b), will she spend all her available income? Verify your answer.  
(2 marks)

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- d) Now suppose Farah's income falls to so that she can now devote RM80 to the two goods. Prices however remain unchanged. In the same diagram, graph her new budget constraint and label it  $BC_1$ . Be sure to identify any new intercept values. (1.5 marks)
- e) Following the change in income, can Farah consume the same bundle 'E'? Explain your answer. (2 marks)

[TOTAL 25 MARKS]

## Question 2

### Part A

Consider a firm with the following production function as in *Exhibit 3*.

Number of worker	Total output
1	40
2	90
3	150
4	190
5	220
6	240

*Exhibit 3*

Based on *Exhibit 3*, answer the following questions.

- a) Construct the marginal product (MP) and average product (AP) schedules for the firm. (6 marks)
- b) When do the increasing marginal returns set in? When do the diminishing marginal returns set in? Briefly explain. (2 marks)
- c) Assume now, the firm's cost of each worker employed (the only variable input) is RM125, and the firm's cost of leasing two small rooms in an office building in the town area is RM500. Construct the firm's total variable costs (TVC) and total costs (TC) schedules. (6 marks)
- d) Calculate average total costs (ATC) and marginal costs (MC) for different quantities of output produced. Explain the relationship between marginal costs (MC) and average total costs (ATC). (7.5 marks)
- e) Compare marginal product (MP) and marginal cost (MC) schedules. Explain the relationship between MP and MC. (3.5 marks)

[TOTAL 25 MARKS]

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**Question 3****Part A**

Consider the choices facing a perfectly competitive firm in the short run. The firm currently produces 100 units per day and sell them at a price of RM12 each. At the current output level, the total cost is RM2,000 per day, the variable cost is RM1,500 per day, and the marginal cost is RM12.

- a) Does the current output level, 100 units per day, the profit maximising level of output? Briefly explain. (2 marks)
- b) Calculate the firm's total revenue, total fixed cost, total profit (losses) at the current output level. (6 marks)
- c) Based on the price and costs given, draw short run equilibrium for the firm. Show the firm's total costs, total revenues and total profit/losses loss areas. (7 marks)
- d) Determine whether the firm should continue or shut down production in the short run. Explain your answer. (2 marks)

**Part B**

Explain how profit maximising monopolist chooses its level of output and the price of its good.

(3 marks)

**[TOTAL 20 MARKS]**

**End of Paper**